

Abstract

ChessPiece - (Entity)

- | | |
|--|--|
| <ul style="list-style-type: none">• Stores, retrieves and can set the current or new position of the piece• Stores, retrieves and can set the colour of the piece | <ul style="list-style-type: none">• King• Queen• Rook• Knight• Pawn• Bishop |
|--|--|

King - (Entity)

- | | |
|---|---|
| <ul style="list-style-type: none">• Moves one square in every direction• Checks and checkmate• Castling with the Rook | <ul style="list-style-type: none">• GameState |
|---|---|

CheckKingMove - (Use Case)

- | | |
|---|--|
| <ul style="list-style-type: none">• Checks to see if the King is moved correctly. | <ul style="list-style-type: none">• King• GameState |
|---|--|

Queen - (Entity)

- | | |
|---|---|
| <ul style="list-style-type: none">• Moves multiple squares in every direction | <ul style="list-style-type: none">• GameState |
|---|---|

CheckQueenMove - (Use Case)

- | | |
|---|---|
| <ul style="list-style-type: none">• Checks to see if the Queen is moved correctly | <ul style="list-style-type: none">• Queen• GameState |
|---|---|

Rook - (Entity)

- | | |
|--|---|
| <ul style="list-style-type: none">• Moves multiple squares horizontally and vertically in any direction• Castling with the King | <ul style="list-style-type: none">• GameState |
|--|---|

CheckRookMove - (Use Case)

- | | |
|--|--|
| <ul style="list-style-type: none">• Checks to see if the Rook is moved correctly | <ul style="list-style-type: none">• Rook• GameState |
|--|--|

Knight - (Entity)

- | | |
|---|---|
| <ul style="list-style-type: none">• Moves & attacks in a L shape (2 squares horizontally or vertically, then 1 square in a perpendicular direction) | <ul style="list-style-type: none">• GameState |
|---|---|

CheckKnightMove - (Use Case)

- | | |
|--|--|
| <ul style="list-style-type: none">• Checks to see if the Knight is moved correctly | <ul style="list-style-type: none">• Knight• GameState |
|--|--|

Bishop - (Entity)

- | | |
|---|---|
| <ul style="list-style-type: none">• Moves diagonally in any direction | <ul style="list-style-type: none">• GameState |
|---|---|

CheckBishopMove - (Use Case)

- | | |
|--|--|
| <ul style="list-style-type: none">• Checks to see if the Bishop is moved correctly | <ul style="list-style-type: none">• Bishop• GameState |
|--|--|

Pawn - (Entity)

- | | |
|--|---|
| <ul style="list-style-type: none">• If it's the first move, the pawn can move two squares forward. Otherwise, it can only move one square forward• Moves one square forwards and can only attack diagonally• Convert to either a Queen, Bishop, Rook or Knight if the pawn reaches the other side of the board (opponent side) | <ul style="list-style-type: none">• GameState |
|--|---|

CheckWhitePawnMove - (Use Case)

- | | |
|--|--|
| <ul style="list-style-type: none">• Checks to see if the "white" pawn is moved correctly | <ul style="list-style-type: none">• Pawn• GameState |
|--|--|

CheckBlackPawnMove - (Use Case)	
<ul style="list-style-type: none">Checks to see if the "black" pawn is moved correctly	<ul style="list-style-type: none">PawnGameState

Abstract CheckPlayerMove - (Use Case)	
<ul style="list-style-type: none">Checks to see if player makes a valid moveIf move is valid, GameState accepts the move and updates the boardIf move is not valid, the move is not made and the user is prompted to make a valid move	<ul style="list-style-type: none">RookKingQueenBishopKnightPawnGameState

GameState - (Controller)	
<ul style="list-style-type: none">Keeps track of the board stateMethods for checking whether the game is over (whether there is a checkmate)Methods for moving each chess pieceMethods for capturing opponent player chess pieces	<ul style="list-style-type: none">RookKingQueenBishopKnightPawnGUICheckPlayerMove

LoadGame - (Controller)

- | | |
|---|--|
| <ul style="list-style-type: none">• Initializes the game• Methods to initialize both player objects/instances• The first player input is taken by load game | <ul style="list-style-type: none">• Rook• King• Queen• Bishop• Knight• Pawn• Gamestate |
|---|--|

CLIBoard - (Interface)

- | | |
|---|---|
| <ul style="list-style-type: none">• Outputs the current state of the board• Receives input for the user's next move• Methods to print the game board after each valid player move | <ul style="list-style-type: none">• GameState |
|---|---|